

WHAT IS CLAIMED IS:

1. An information processing apparatus for accessing a data storage device in a non-contact manner, comprising:

electromagnetic-wave emitting means disposed at a predetermined position for emitting an electromagnetic wave;

data communication means for transmitting and receiving data to and from the data storage device through the electromagnetic-wave emitting means;

a display having a display area to which a predetermined area which includes at least a part of a portion where the electromagnetic-wave emitting means is disposed is set; and

control means for controlling the operations of the data communication means and the display,

wherein the control means switches a presentation of the display according to processing of the data communication means.

2. An information processing apparatus according to Claim 1, wherein the electromagnetic-wave emitting means is disposed almost at the center of the display area.

3. An information processing apparatus according to Claim 1, wherein the data communication means starts

transmitting and receiving predetermined data to and from the data storage device when a response corresponding to a polling issued to the data storage device is obtained, and

the control means switches the presentation of the display at least between a period from when the polling is issued to the data storage device to when the response is obtained, and a period in which the data is transmitted and received according to the response.

4. An information processing apparatus according to Claim 3, wherein a guidance on a position where the data storage device is held is displayed until the response is obtained from the data storage device.

5. An information processing apparatus according to Claim 1, wherein the control means switches the presentation of the display in processing for transmitting and receiving data to and from the data storage device, between when the processing has been successfully finished and when the processing cannot be successfully finished.

6. An information processing apparatus according to Claim 1, wherein the control means drives predetermined sound emitting means to emit a predetermined sound, in a link with a presentation in the display.

7. An information processing apparatus according to Claim 1, wherein the data storage device is a non-contact-type IC card.

8. An information processing apparatus according to Claim 1, wherein processing for transmitting and receiving the data is processing of electronic money recorded in the data storage device.

9. An information processing apparatus according to Claim 1, further comprising convey means for conveying the data storage device,

wherein the control means switches the operation of the convey means in a link with switching of a presentation in the display.

10. An information processing apparatus according to Claim 9, wherein the convey means conveys the data storage device such that it can be seen.

11. An information processing apparatus according to Claim 9, wherein the convey means conveys the data storage device by the free fall of the data storage device.

12. A data communication method for accessing a predetermined data storage device in a non-contact manner, comprising the step of:

switching a presentation of a predetermined area which includes at least a part of a portion where electromagnetic-wave emitting means used for data communication with the data storage device is disposed, according to data communication processing with the data storage device.

13. A data communication method according to Claim 12, wherein the display is switched between a period acquired until a response corresponding to a polling issued to the data storage device is obtained, and a period in which data is transmitted and received according to the response.

14. A data communication method according to Claim 13, wherein a display made in a period acquired until a response corresponding to a polling issued to the data storage device is obtained is a guidance on a position where the data storage device should be held.

15. A data communication method according to Claim 12, wherein the display is switched in data communication with the data storage device, between when the processing has been successfully finished and when the processing cannot be

successfully finished.

16. A data communication method for accessing a predetermined data storage device in a non-contact manner, comprising the step of:

emitting sound generated according to data communication processing with the data storage device, at timing corresponding to the data communication processing.

17. An information processing apparatus for performing data communication with a data storage device, comprising:

communication means for transmitting and receiving data to and from the data storage device by an electromagnetic wave; and

state indication means for indicating a first state in which the information processing apparatus is waiting for communication with the data storage device, a second state in which the information processing apparatus is communicating with the data storage device, and a third state in which communication between the information processing apparatus and the data storage device has been finished.

18. An information processing apparatus according to Claim 17, wherein the state indication means also indicates

a fourth state in which communication between the information processing apparatus and the data storage device has been not successfully finished.

19. An information processing apparatus according to Claim 17, wherein the state indication means indicates the states of communication with the data storage device in a visually recognizable manner.

20. An information processing apparatus according to Claim 19, wherein the state indication means is a light-emitting apparatus disposed at a predetermined portion in a storage section for storing the data storage device or in a placement section where the data storage device is placed, the sections being provided for the information processing apparatus.

21. An information processing apparatus according to Claim 17, wherein the state indication means indicates the second and third states by emitting a sound.

22. An information processing apparatus according to Claim 21, wherein the state indication indicates the second and third states by emitting different sounds.

23. An information processing apparatus according to Claim 17, wherein the state indication means indicates an area allowing communication with the data storage device.

24. An information processing apparatus according to Claim 20, wherein the first, second, and third states can be visually recognized at the placement section through the data storage device.

25. A guidance method on communication between a data holding apparatus and a processing apparatus for transmitting and receiving data in a non-contact manner, comprising the step of:

guiding on the state of communication with the data holding apparatus by the use of sound or light.